

Richard Kha

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 Richard Kha |  kRichard32

Toronto, Ontario, Canada

SUMMARY

Determined software developer with a background in machine learning, systems, research, and game development. Looking for an interesting role to develop important and impactful software.

EDUCATION

• University of Toronto

September 2021 - October 2025

B.Sc. in Computer Science (Honours), focus in Artificial Intelligence

Toronto, Canada

◦ GPA: 3.95/4.00

◦ Relevant coursework: Data Structures & Analysis, Algorithm design & Analysis, Operating Systems, Introduction to Machine Learning, Neural Networks & Deep Learning

SKILLS

• **Programming Languages:** Java, Python, C/C++, JavaScript, React.js

• **Database Systems:** PostgreSQL

• **Data Science & Machine Learning:** PyTorch, Scikit-learn, Numpy

• **Cloud Technologies:** Google Cloud Platform, Docker

• **Other:** Git, GitHub, Linux, Unit Testing, REST APIs

WORK EXPERIENCE

• Optimizing remote JIT compilation for the JVM

May 2024 - August 2024

Undergraduate researcher (University of Toronto & IBM CAS)

◦ Developed benchmarking tools (Using Python, Java, Docker) to measure the speed of the JITServer

◦ Created a scheduling algorithm in C++ which reduces client runtime by up to 9% in high load scenarios

◦ Co-wrote the [paper](#) on our findings and performed an oral presentation at HotInfra '24

• Automating Data Analysis for Enhancing ASD Therapy Sessions

September 2024 - December 2024

Undergraduate researcher (University of Toronto)

◦ Implemented a diarization model (Deep neural network) from a recent paper and conducted tests to determine effectiveness of model

◦ Developed an improved version of the diarization model with increased accuracy in the child-adult speech scenario and implemented an algorithm to improve transcriptions accuracy by up to 8%

◦ Wrote a brief [report](#) on our findings

SELECTED PROJECTS

• Koko: [A social app for seniors]

July 2025 - Present

Tools: [Java spring boot, React.js, Firebase, PostgreSQL, WebRTC, Google OAuth, GCP]

[<https://kokosocial.ca/>]

◦ Alongside two classmates, created an android app to support social communication within older adult communities with a strong focus on accessibility

◦ Worked on both the front-end mobile app and the back-end Java resource server for the application

◦ Added messaging, video calling services, user creation services, and matchmaking services

◦ Integrated a voice navigation feature for ease of use within the app

• Neural Network Pokemon Image Classifier

May 2025 - June 2025

Tools: [PyTorch, Triton Inference Server, ONNX, Python, React]



◦ Implemented a convolutional neural network and trained it on a set of Pokemon images for classification

◦ Created a React GUI which connected to a python backend through REST endpoints

HONORS AND AWARDS

• Undergraduate Student Research Award (USRA)

May 2024 - September 2024

Natural Sciences and Engineering Research Council of Canada (NSERC)



◦ Award to support summer research done in 2024

PUBLICATIONS

- [1] R. Kha, N. Sreekumar, A. Khrabrov, E. de Lara, A. Brown, M. Gabel, M. Pirvu. (2024). [Towards Optimal Remote JIT Compilation Scheduling for the JVM](#). 2nd Workshop on Hot Topics in System Infrastructure ([HotInfra 2024](#)) held in conjunction with [SOSP 2024](#). November 2024.

VOLUNTEER EXPERIENCE

• Coding/Math Tutor

August 2021 - Present

YDC - Youth Dream Canada



◦ Mentored students in a 1 on 1 setting in computer science and math